



Contribution ID: 26

Type: **not specified**

Dark Energy from Coupled p -forms

Wednesday 23 September 2020 14:20 (20 minutes)

In this work we study the possibility to obtain an accelerated expansion from arbitrary couplings between p -forms in a 4-dimensional space-time. The Lagrangian is built with couplings between 1- and 2-forms with kinetic functions of a scalar field ϕ (a quintessence field in this context). By using a dynamical system approach, we study the evolution of the fields in an anisotropic background, which is a natural framework to show if the interaction between p -forms can sustain a non-negligible shear. In addition, we found conditions for the cosmological viability of a dark energy dominated epoch. The evolution and stability is also confirmed by numerical integrations.

Authors: GUARNIZO , Alejandro (Universidad Antonio Nariño); BELTRAN, Juan Pablo (Universidad Nacional de Colombia); VALENZUELA-TOLEDO, Cesar A. (Universidad del Valle)

Presenter: GUARNIZO , Alejandro (Universidad Antonio Nariño)

Session Classification: CoCo